

Application No.: 09/471,435
Amendment Dated January 19, 2004
Reply to Office Action of January 9, 2004

REMARKS

Claims 1, 3-7, 14-16, 20-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,185,202 to Gockler, et al. (hereinafter "Gockler"). The asymmetric digital subscriber loop (ADSL) modem of claim 1 includes an integrated circuit comprising an analog-to-digital converter to produce data at a relatively higher data rate. To reduce the higher data rate from the analog-to-digital converter to a lower data rate, the integrated circuit includes a device coupled to the analog-to-digital converter. The integrated circuit further includes a multiplexer which multiplexes the lower data rate data and control information and transmits the data and control information externally off the integrated circuit. Reconsideration of §103 rejection of claim 1 is respectfully requested because the Gockler reference fails to render claim 1 limitations obvious to one of an ordinary skill in the pertinent art.

However, the Gockler reference fails to teach or suggest an asymmetric digital subscriber loop modem including an integrated circuit with use of a multiplexer to multiplex the lower data rate data and control information such that the lower data rate data and control information are transmitted externally off the integrated circuit. In addition, the Gockler reference does not teach an analog-to-digital converter contained in the integrated circuit for producing data at a relatively higher data rate.

The Examiner reasons that conventional analog-to-digital circuit produces a relatively higher data rate. However, such a teaching is absent in the Gockler reference. The Examiner acknowledges that the modem taught by the Gockler reference does not comprise an integrated circuit, as claimed in claim 1. More so, the multiplexer in the Gockler reference receives outputs from two decoders instead of receiving lower data rate data and control information, see Gockler reference column 4, lines 56-61. In this manner, claim 1 is not rendered *prima facie* obvious. Accordingly, the Examiner is respectfully requested to reconsider the § 103 rejection of claim 1

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and consider allowance thereof because claim 1 is patentably distinguishable over the Gockler reference.

Specifically, the Gockler reference fails to teach an ADSL modem that allows data to be most efficiently shared between integrated circuits. In contrast, the ADSL modem claimed in claim 1 may achieve efficiency and cost reduction by providing a codec chip which transmits data externally off the chip when the data is at a reduced or lower data rate. There is no teaching whatsoever as to this transmission at a reduced data rate externally off the chip, as claimed in claim 1.

The Gockler reference merely teaches point to multipoint radio transmission system in which two transmitted signal paths and two received signal paths are provided so that adjustment to new transmission parameters may take place in a signal path that is not currently activated. However, there is no teaching of the ADSL modem in which data rate is manipulated, as claimed in claim 1. In this manner, a *prima facie* obviousness case of claim 1 is not made out.

For the similar reasons as set forth above with respect to claim 1, the method of claim 14 is also in condition for allowance which is respectfully requested of the Examiner. Specifically, claim 14 includes the limitation of transmitting data to a second integrated circuit device. Data is not transmitted between the two integrated circuits at a relatively high rate, as claimed in claim 14 because the high data rate transmission between integrated circuit chips results in more buffering at each chip and more pins are needed to connect the chips. This increases the cost of each chip. However, as claimed in claim 14, the data rate of data is decreased before transmitting the data to a second circuit device. In this manner, claim 14 and claims depending therefrom are patentable over the cited art. The Examiner is requested to consider all pending claims.

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In view of these remarks, the application is now in condition for allowance and the Examiner's prompt action in accordance therewith is respectfully requested.

Respectfully submitted,



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